



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/686,903

10/16/2003

Young-Min Jo

D032/069987-034

8585

29391

7590

08/17/2004

BEUSSE BROWNLEE WOLTER MORA & MAIRE, P. A.
390 NORTH ORANGE AVENUE
SUITE 2500
ORLANDO, FL 32801

EXAMINER

NGUYEN, HOANG V

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,903

Applicant(s)

JO ET AL.

Examiner

Hoang V Nguyen

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-48 is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,12 and 16 is/are rejected.
- 7) ☒ Claim(s) 3-5,8-11 and 13-15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/9/04</u> . | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 6, 7, 12 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Moore (US 6,573,869).

Regarding claim 1, Moore (Figures 1-3) discloses an antenna comprising a spiral-shaped top plate 12 bounded by one or more edges; a shorting element 30 extending from the top plate in the direction of the ground plane 18 for electrically connecting the top plate to the ground plane; and a sidewall 34 extending from a top plate edge in the direction of the ground plane.

Regarding claim 2, as applied to claim 1, Moore (Figures 1 and 3) shows that a portion 25 of the top plate overlies the ground plane when the antenna is operative with the ground plane.

Regarding claim 6, as applied to claim 1, Moore (Figure 3) shows that the top plate comprises an inner spiral segment and an outer spiral segment.

Regarding claim 7, as applied to claim 1, Moore (Figure 3) shows that the top plate comprises a continuous spiral formed from a conductive material.

Regarding claim 12, as applied to claim 1, Figure 3 of Moore further shows a feed element 26 connected to the top plate.

Regarding claim 16, as applied to claim 1, Figure 3 of Moore shows that the sidewall 34 forms a substantially right angle with the top plate edge.

Allowable Subject Matter

3. Claims 3-5, 8-11 and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 17-48 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 3, Moore fails to further teach, among other features, that an area of the portion of the top plate overlying the ground plane is adjustable to affect antenna performance.

Regarding claim 4, Moore fails to specifically teach, among other features, that the portion of the top plate overlying the ground plane includes a first region of the top plate from which the shorting element extends and excludes a second region of the top plate from which the sidewall extends.

Regarding claim 5, Moore fails to specifically teach, among other features, that the ground plane comprises a conductive material disposed on a first region of the substrate and conductive material is absent from a second region of the substrate, and wherein the sidewall is disposed overlying the second region.

Regarding claims 8-11, Moore fails to further teach, among other features, that the shorting element comprises a meanderline conductor.

Regarding claims 13-15, Moore fails to further teach, among other features, that the feed element is disposed at a terminal end of the outer spiral segment.

Regarding claims 17-22, Moore discloses an antenna comprising a ground plane; a spiral top plate having first and second regions, wherein the first region overlies the ground plane; and a feed element in electrical communication with the top plate. Moore, however, fails to further teach first and second meanderline conductors extending from the top plate.

Regarding claims 23-28 and 47, Moore discloses an antenna comprising a spiral-shaped top plate having one or more edges; a sidewall extending from a top plate in a direction toward the ground plane. Moore, however, fails to further teach that the top plate having a first region disposed opposite the ground plane and a second region extending beyond an edge of the ground plane.

Regarding claims 29-36 and 48, Moore discloses an antenna comprising a spiral-shaped top plate and a sidewall extending from an edge of the top plate. Moore, however, fails to further teach a first meanderline element extending from the top plate in a direction of the ground plane for interconnecting the top plate to the ground plane; and a second meanderline element extending from the top plate.

Correspondence

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang V Nguyen whose telephone number is (571) 272-1825. The examiner can normally be reached on Mondays-Fridays from 9:00 a.m. to 5:00 p.m..

Art Unit: 2821

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hvn
8/13/04



HOANG V. NGUYEN
PRIMARY EXAMINER